

# RHONDAMA LIMITED PTFE CARBON

## PTFE CARBON Hardness 67° Shore D Black

Composition % weight  $\pm$  1:  
25% Carbon + 75% virgin PTFE

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### Mechanical, physical and thermal properties

Properties	Condition	Standard	Unit			
Colour				Black		Black
Density/specific gravity	23°C	DIN 53479	Kg/m <sup>3</sup>	2100	g/cm <sup>3</sup>	2,1
Hardness	23°C	ISO 868	Shore D	67 $\pm$ 3	Shore D	67 $\pm$ 3
Ball indentation hardness	23°C	DIN 53456 H135/30	MPa	$\geq$ 34	Psi	$\geq$ 4931
Tensile strength	23°C	ASTM D 4745-79	MPa	$\geq$ 18	Psi	$\geq$ 2610
Elongation at break	23°C	ASTM D 4745-79	%	$\geq$ 80	%	$\geq$ 80
Compressive strength	23°C	DIN 53455	MPa		Psi	
Thermal conductivity	23°C	DIN 52612	$\frac{J \times 10^3}{m \times h \times K}$	3,5	$\frac{J \times 10^3}{m \times h \times K}$	3,5
Coefficient of thermal expansion	25°C-200°C		K <sup>-1</sup> $\times$ 10 <sup>-5</sup>	10,9	K <sup>-1</sup> $\times$ 10 <sup>-5</sup>	10,9
Coefficient of friction	*		$\mu$	0,17	$\mu$	0,17
Minimum service temperature			°C	-200	°F	-328
Maximum service temperature			°C	260	°F	500
Young's modulus		DIN 53457	MPa		Psi	

\* dynamic coefficient of friction, dry, steel 16MnCr5: v=0,6 m/s; p=0,05 MPa; t=5h

### Chemical Properties

#### Filled PTFE

**Resistant to:** almost all chemicals

**Not resistant to:** halogenides, elemental fluorine, CF<sub>3</sub>, molten alkali metals  
*Detailed information concerning chemical resistance see Rhondama Compatibility Chart*